SFS-01b-2014

Tackling losses from terrestrial animal diseases

Strengthening Animal Production and Health through the Immune Response

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1. Author(s)

Organisation name lead contractor	EFFAB

Author	Organisation	e-mail
Miriam van Straten	EFFAB	miriam.vanstraten@effab.info
Eline Raedts	EFFAB	eline.raedts@effab.info

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EXECUTIVE SUMMARY

Background	The SAPHIR project is an European H2020 research project which aims to develop innovative, safe, affordable and effective vaccine strategies effective against endemic pathogens responsible for high economic losses in livestock. To fully exploit the results of this project it needs to be communicated and disseminated to find its way to a wider audience. Communication, dissemination and training activities will be an integral part of the project to ensure that the project achieves a high profile, and that outcomes are available to the end-users of SAPHIR, policymakers and the general public.
Objectives	All communication and dissemination activities have to serve the main objectives of SAPHIR. To that end, an entire pillar (pillar E) with one work package (WP17) is dedicated to 'Outreach, dissemination and training'. The general objective is to disseminate information on vaccines and health-directed strategies and on SAPHIR outcomes to stakeholders and the scientific community.
Methods	Write an Outreach, training and dissemination plan that describes the actions to be taken: o Communicate on the SAPHIR project by a public website o Disseminate the benefits of vaccines and other health-directed strategies and on SAPHIR outcomes to stakeholders by dedicated workshops and other dissemination tools o Disseminate integrated health management strategies to food animal stakeholders by a dedicated website o Publish in high-ranked peer-reviewed scientific journals and communicate in congresses o Launch a Global Alliance for Veterinary Vaccinology that provides training to scientist and animal health professionals.
Results & implications	A detailed dissemination and training plan designed from inputs of the end-users, the partners, the Stakeholder committee and the IPUDC, which will plan communication strategy to the stakeholders and scientific community as well as the planning of training events.

List of abbreviations

BRSV	Bovine Respiratory Syncytial Virus
CAR	Cardiff University, *United Kingdom*
C. perfringens	Clostridium perfringens
CVI	Stichting Dienst Landbouwkundig Onderzoek, *The Netherlands*
DIVA	Differentiation of infected from vaccinated animals
DoA	Description of Action
EC	European Commission
EDI-IVI	Eidgenössisches Departement des Innern, Institut für Virologie und Immunologie, *Switzerland*
EFFAB	European Forum of Farm Animal Breeders, *The Netherlands*
EU	European Union
Ex. Com.	Executive Committee
GA	Grant Agreement
H2020	Horizon 2020
ING	Inmunología y Genética Aplicada S.A. Ingenasa, *Spain*
INRA	Institut national de la recherche agronomique, *France*
IPR	Intellectual Property Rights
IPUDC	Intellectual Property Use and Dissemination Committee
IT	INRA Transfert, *France*
M. bovis	Mycoplasma bovis
M. hyopneumoniae	Mycoplasma hyopneumoniae
PRRSV	Porcine Reproductive and Respiratory Syndrome Virus
PTP	Parco Tecnologico Padano, *Italy*
RVC	The Royal Veterinary College-University of London, *United Kingdom*
SGGW	Warsaw University of Life Sciences, *Poland*
SHVRI	Shanghai Veterinary Research Institute, *China*
SLU	Sveriges lantbruksuniversitet, *Sweden*
SPG	SporeGen, *United Kingdom*
TPI	The Pirbright Institute, *United Kingdom*
UEDIN	University Court of the University of Edinburgh, *United Kingdom*
UGENT	Universiteit Gent, *Belgium*
UNIBE	Bern University, *Switzerland*
UNIL	Lausanne University, *Switzerland*
VAC	Vaccibody, *Norway*
VIR	Virbac, *France*
WP	Work Package
XEO	Xeolas Pharmaceuticals, *Ireland*

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1. Introduction

The SAPHIR project is an European Horizon 2020 research project which aims to develop innovative, safe, affordable and effective vaccine strategies effective against endemic pathogens responsible for high economic losses in livestock. To fully exploit the results of this project, it needs to be communicated and disseminated to find its way (being known and understood) to a wider audience. Communication, dissemination and training activities will be an integral part of the project to ensure that the project achieves a high profile, and that outcomes are available to the end-users of SAPHIR, policymakers and the general public.

1.1.   Background

This project is setup to show the potency of promising vaccines against frequently occurring pathogens and to design innovative vaccine strategies, resulting in an increased viability, sustainability and profitability of food animal production systems and an improved animal welfare. The pathogens addressed in by the SAPHIR project are: Porcine Reproductive and Respiratory Syndrome Virus (PRRSV) and Mycoplasma (M.) hyopneumoniae in pigs, Eimeria species and Clostridium (C.) perfringens in chickens, Bovine Respiratory Syncytial Virus (BRSV) and Mycoplasma (M.) bovis in cattle. All these SAPHIR pathogens are directly or indirectly responsible for high antimicrobial use, generating antimicrobial-resistance and threats against the "One health" objective. Available vaccines against these pathogens are either lacking or present major weaknesses. SAPHIR will tackle these weaknesses to develop new vaccine strategies based on the most up-to-date knowledge. Marketability aspects of SAPHIR outputs will be covered by the pharmaceutical companies and biotech enterprise members of the consortium, i.e. VIR, MSD, ING, PTP, XEO, SPG and VAC. Interactions between research, industry and regulatory bodies will be facilitated by a Stakeholder committee (pharmaceutical and breeding industry, regulatory and livestock production system representatives) which will advise the consortium towards most operational achievements.

The consortium gathers 23 partners from the academic (16) and private sectors (7). The academic partners were chosen for their scientific excellence and their adequacy to the project objectives. They will interact in sharing knowledge, reagents, know-how, data, results, technological and animal experiment platforms, and biological samples via WP implementation, SAPHIR meeting, Ex. Com. meetings and the collaborative platform.

1.2.   Outreach, training and dissemination

One of the pillars in this project (pillar E) is solely dedicated to the demonstration, implementation and dissemination of results to the project partners within the project, and externally via the web and through training sessions to the stakeholders. Pillar E aims to assure awareness of the SAPHIR project amongst stakeholders, general public and policy-makers, and to increase knowledge uptake by the food animal stakeholders. The DoA mentions several project deliverables for training, communication and dissemination. This "Outreach, training and dissemination plan" describes the communication activities of SAPHIR in detail.

It is important to be aware of the difference between outreach and dissemination. **Outreach** means 'promoting public awareness (and understanding) of science and making informal contributions to science education. (art. 38 GA)'. **Dissemination** means 'the disclosure of project results by the participants through any appropriate means, including publication in any medium. (art. 29 GA)'.

This document is structured as follows:

- Chapter 1 is an introduction into the project and the importance of a communication plan.
- Chapter 2 describes the objectives of the communication plan and the target audiences.
- Chapter 3 describes the project identity of SAPHIR.
- Chapter 4 describes the main message of the project.
- Chapter 5 describes the outreach, training and dissemination activities in detail.
- Chapter 6 describes how the activities will be planned in time.
- Chapter 7 describes how the activities will be evaluated.

2. Communication objectives and targeted audiences

2.1. Objectives

All communication and dissemination activities have to serve the main objectives of SAPHIR. To that end, an entire pillar (pillar E) with one work package (WP17) is dedicated to 'Outreach, dissemination and training'.

The general objective is to disseminate information on vaccines and health-directed strategies, and on SAPHIR outcomes to:

- stakeholders for promoting vaccine developments by industry and their use in the field; and
- the scientific community for promoting research advances.

The specific objectives are:

1. To communicate on the SAPHIR project by a public website
2. To disseminate the benefits of vaccines and other health-directed strategies, and on SAPHIR outcomes to stakeholders by dedicated workshops and other dissemination tools
3. To disseminate integrated health management strategies to food animal stakeholders by a dedicated website
4. To publish in high-ranked peer-reviewed scientific journals and communicate in congresses
5. To launch a Global Alliance for Veterinary Vaccinology that provides training to scientists and animal health professionals.

2.2. Target audiences

To focus the communication and dissemination activities it is important to define specific target audiences that the communication and dissemination are aimed at. For SAPHIR the following target audiences have been identified:

External target audiences:

- o Scientists
- o Industry:
  - o Pharmaceutical companies
  - o Diagnostic companies
  - o Breeding companies
- o Livestock producers
- o Veterinarians
- o Policy makers and food industry
- o General public

Internal target audiences:

- o Project partners
- o Project officers at DG research

SAPHIR dissemination will target the scientific community and stakeholders, while respecting confidentiality under the control of the IPUDC and the Ex. Com. A flow of information will be promoted between academic researchers, pharmaceutical, diagnostic and breeding companies during and after the project, to favour the SAPHIR research developments and outcomes access to the market. The SAPHIR vaccine strategies and the value of integrated health strategies will be communicated to the livestock producers and veterinarians. Finally, dissemination will target policy makers, food industry and the general public for awareness on the benefits of the new vaccine strategies. Besides the aforementioned external target audiences, the project partners and project officers at DG Research form the internal target audiences.

In Table 1 all target audiences are listed with their respective communication goals, level of knowledge on vaccine development, possible communication benefits and risks.

Table 1. *Target audiences for SAPHIR*

External audiences				
Target audiences / stakeholders	*Communication goals*	*Previous knowledge on vaccine development*	*Potential benefits for SAPHIR*	*Potential risks for SAPHIR*
Industry: - *Pharmaceutical companies* - *Diagnostic companies* - *Breeding companies*	- Transfer up-to-date knowledge on new vaccines and routes of delivery - Transfer knowledge on innovations in new diagnostic assays and techniques to be developed in this project (i.e. DIVA tests) - Transfer knowledge on innovations in biomarker assisted breeding resulting from this project.	Medium-high Medium-high Low-medium	All of these industry stakeholders: - are potential users of the project outcomes - can be a source of valuable and useful information, e.g. by validating outcomes of the project - can become ambassadors / multipliers for the project message and results	- In transferring knowledge there is always a risk of misinterpretation and misuse of knowledge and information - No interest from industry stakeholders - Risk of losing intellectual property to organisations outside SAPHIR despite IPUDC surveillance of IP.
Livestock Producers & Veterinarians	- Inform on the potential increase in profitability, the chance to improve animal health and welfare, the possibilities of optimizing production potential and profitability, and resources - Inform on compliance for vaccine use - Inform on vaccine risk assessment	Low-medium	Livestock producers and Veterinarians: - are potential users of the project outcomes - can be a source of valuable and useful information - can become ambassadors / multipliers for the project message and results	- In transferring knowledge there is always a risk of misinterpretation and misuse of knowledge and information - No interest in project outcomes - Non-willingness to apply the new products, knowledge and technologies on farm level
Scientists	- Knowledge transfer on veterinary vaccines development through training activities - Stimulate the communication on project results to the scientific community - Expanding scientific network contacts	Medium-high	Researchers: - can contribute their knowledge and expertise to the SAPHIR project - can communicate and link SAPHIR to other relevant research projects	- Not communicating with other researchers might cause duplication of research - Other researchers might try to compete with SAPHIR - Risk of losing intellectual property to organisations outside SAPHIR

Target audiences / stakeholders	Communication goals	Previous knowledge on vaccine development	Potential benefits for SAPHIR	Potential risks for SAPHIR
Policy-makers and food industry: *European Commission (DG Agri, DG Sante, DG Research)* *MEPs* *National policy-makers* *Representative organisations for the food industry*	- Communicate the progress, gains, improvements challenges and characteristics of different vaccine technologies - Communicate project results to show public funds have been used efficiently - Demonstrate the importance of research for the livestock sector - Make sure that policy decisions at EU and national level in the field of vaccine technology, animal breeding and animal welfare are based on the latest insights in the field - Promote future investments in similar projects or actions	Medium-High	- Opportunity to demonstrate the value of EU investments in research & development - Ability to influence important policy decisions and legal frameworks by providing a solid scientific ground	- A failure of the project could mean that funds are not granted in the future - No communication might result in policy decisions which are not in line with the project results
General public *Representative consumer organisations*	- Communicate the project results to show public funds have been used efficiently - Raise awareness and increase knowledge to improve acceptance of modern vaccine technologies - Gain understanding and support for vaccine technologies, reduction of antibiotic use, sustainability of animal breeding and improved animal welfare	Low-Medium	- Decrease public concerns about livestock diseases and vaccine technology and prevent new concerns from emerging diseases.	- Miscommunication might increase public concerns instead of decreasing them - There is a risk of a negative influence on the public opinion of SAPHIR

<div align="center">*Internal audiences*</div>

Target audiences / stakeholders	Communication goals	Previous knowledge on vaccine development	Potential benefits for SAPHIR	Potential risks for SAPHIR
Project partners	- Keep the project partners updated on the progress in the work packages - Facilitate communication between the partners to create synergy within the project - Share project successes - Promote new research developments	High	A good communication infrastructure will: - stimulate project partners to share information and knowledge with each other and external stakeholders - lead to more efficiency	A suboptimal communication infrastructure can cause duplication of work, delays within the project, decreasing motivation and synergy.
Project officers at DG Research	- Keep the project officers updated on the progress of the project - Inform the project officers on any activities, deliverables, publications and project outcomes	Medium to high	Transparent communication with the project officers will positively influence the processes within the project	- A lack of communication with the project officers can cause delays in delivering results - There can be financial consequences if project officers are not informed properly

3. Project identity

To make sure that the SAPHIR project appears coherent and consistent in all communications related to the project, a project identity and accompanying guidelines have been produced. All participants are encouraged to follow the guidelines, for presentations, brochures, factsheets, publications etc. All official material, for example to the EC and general public, must be in accordance with the guidelines.

3.1. Logo

The SAPHIR logo has been designed for branding the project in all communication expressions. The logo is in a blue tone, which refers to the blue coloured sapphire gemstone. The dot on the i is a graphic version of a virus referring to the diseases that are the focal point of the SAPHIR project. The chicken, cow and pig are representing the animals SAPHIR is focussing on.

The logo exists in two versions, for different use:
- With or without under text (see below)
  - o Normally use with under text unless it's practically unsuitable
- File formats PSD work file, JPEG and PNG
  - o Normally use JPEG or PNG. Only use PDS work file for graphic purposes.



Parts of the logo can also be used separately:

The logo files will be placed on the collaborative platform of the project.

3.2. Font

Text font for Power points, posters etc. is Arial. Standard font size is 11 (as used in this document). Main text colour is black.

When there is a need for hierarchical headlines, define style as Cambria (title 1) or Arial (title 2 and 3). Example of heading 1, 2 and 3:

1. Title 1

1.1 Title 2

1.1.1 Title 3
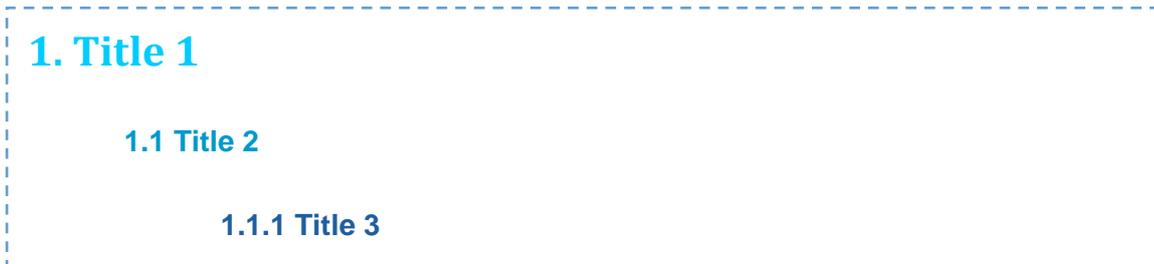
3.3. Colours

The colours of the SAPHIR project identity are based on blue tones, which refers to the blue coloured sapphire gemstone. The colours can be used at 100%, 80%, 60%, 40% and 20% saturation.

RGB: 0 204 255	RGB: 0 153 204	RGB: 30 94 159
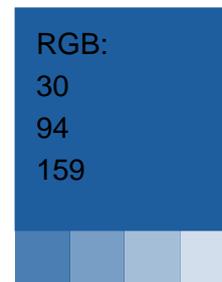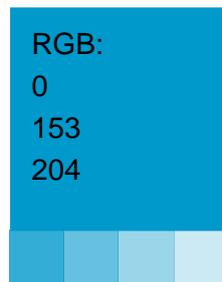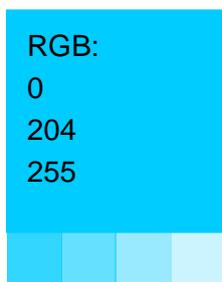
3.4. Language

The language used between all SAPHIR partners and in the reports to the EU is British English. In addition, all partners are free and encouraged to promote our activity in the language of their own country.

3.5. EU logo and acknowledgement

Along with the SAPHIR logo, the EU flag should be visible on all communications on SAPHIR.

In addition to the EU flag, the following acknowledgement and disclaimer must be included in all publications related to SAPHIR:

This project has received funding from the European Union's Horizon 2020 Programme for research, technological development and demonstration under the Grant Agreement n°633184. This publication reflects the views only of the author, and not the European Commission (EC). The EC is not liable for any use that may be made of the information contained herein.

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3.6. Templates

There are several templates with the SAPHIR profile. In the management of SAPHIR and related to all official happenings and reporting, the templates shall always be used and the partners in SAPHIR are encouraged to use them. In presentations and posters involved in the SAPHIR project, always use official SAPHIR logo, accompanied by the EU flag.

Templates for SAPHIR can be found on the collaborative online platform of the project:

- Agenda
- Deliverable reports
- Letter
- Logo
- Minutes of meeting
- Power point presentation

4. Communication message

For the communication messages, we propose a tagline and a more elaborate communication message.

4.1. Tagline

The tagline describes the essence of the project in a short and understandable way, linking to why this is important for the target audiences. This is used on communication material (website, brochure, presentations). Proposed tagline and currently used:

"Strengthening animal production and health through the immune response"

4.2. Communication message

The communication messages exist out of one general message which should be further specified per target group. It will create the 'external identity' of the project. The message must be simple, clear and positive. This proposed main communication message is:

Proposal:

The European research project SAPHIR aims to develop innovative, safe, affordable and effective vaccine strategies effective against endemic pathogens responsible for high economic losses in livestock. By generating vaccine strategies for these pathogens in pigs, poultry and ruminants, SAPHIR will aid in strengthening the profitability of food animal systems, improve animal welfare and reduce xenobiotic usage in farming with a 'One Health' perspective.

5. Outreach, training and dissemination tools and activities

To reach all target audiences mentioned in chapter 2, a range of online and offline informative materials are and will be developed and published. In this chapter, the online and offline outreach, training and dissemination tools and activities will be described. In Table 16, an overview of all means and media per target audience is given.

5.1. Online tools and activities

5.1.1. Partner platform

All individual participants get access to the partner platform using a login system for confidentiality, which is set up using an INRA Transfert collaborative workspace. This Collaborative Workspace is secured by password and only authorized people can access this site. Everybody with access to the platform can view all information and documents available. The project intranet (collaborative workspace) is under construction and will be accessible at the following address:

https://workspaces.inra-transfert.fr/LotusQuickr/saphir/Main.nsf/h_RoomHome/57ff3dd091f1bfe4c1257e3e0043821a/?OpenDocument

The Project Manager (Aurelie.Brehmer@paris.inra.fr) is setting up this platform and will ensure its maintenance throughout the project. This internal website is a secured collaborative workspace on the web where all partners can share information and documents:

- scientific documents
- administrative documents
- time sheets
- financial documents

This platform is intended to enable collaboration between the different partners at all levels: work packages, Executive Committee, etc. and to trace document delivery. It should also be used as a central storage system of the project. Its functions include scientific, administrative and financial information exchange and archiving. It will also be used to monitor the projects through appropriate tools to be developed.

Table 2. Overview partner platform

Aim:	Keep the platform up to date to make sure all partners have access to the same information and keep the project management informed about progress and delays.
What:	Information on project activities, events, results, reports, announcements, minutes of meetings, scientific documents, financial documents etc.
How:	Each WP leader is responsible for providing accurate information.
Who:	All project partners are responsible for providing input on their WPs. INRA Transfert is responsible for keeping the collaborative platform operational.
Needed:	Advanced project management software to track the project progress, flag delays, and enable effective internal project communication to ensure that all participants are aware of the project status. Coordination and operational support to keep the partner platform working.
Time frame:	Ongoing

5.1.2. SAPHIR public website

The SAPHIR website is a dynamic medium which will be adapted during the course of the project. News, events and project results will be added over time. The website is an important first contact point of the project with the target audiences. It should be informative, up-to-date, inspiring and inclusive, and invite visitors to further engage with the project.

The project website is available on http://www.h2020-saphir.eu

The website is set up to cover at least, but not exhaustively the following content:
- Project aim, objectives, description and impact
- News items and press releases
- Agenda of important public events regarding the project
- Description and contact details about partners and collaborators involved in the project
- Links to related national and EU projects
- Public project results
- Secure area for project partners and dedicated stakeholders
- Link to the collaborative partner platform

More details on the SAPHIR public website can be found in Deliverable 17.2. Because of confidentiality issues, dissemination of results will be submitted to prior approval of the Ex. Com. and IPUDC, following the procedure set by the IPUDC for the content of public dissemination material

Table 3. Overview SAPHIR public website

Aim:	Keep the website up to date with inspiring information on the project activities, the outcomes, and meaning of the outcomes.
What:	News items on recent developments, (public) papers published, updates on results, updates on activities/events/progress, etc.
How:	There are many developments in the project worth sharing. Not necessarily everything that is communicated through the website needs to be published in an article. Also activities that have just started or researcher profiles are newsworthy. Examples of interesting news items are: presentations given; meetings of the project, job openings at partners organisations etc. All WP leaders are encouraged to come up with news items.
Who:	All project partners are responsible for providing input on their WPs and ideas for other newsworthy items. EFFAB is responsible for keeping the website operational. Items for publication on the public website need to be checked by the IPUDC.
Needed:	An operational website and website manager, input from all project partners on a regular basis, check from IPUDC.
Time frame:	Ongoing

5.1.3. Website on integrated health management strategies

This website is targeted to food animal stakeholders and will propose combined measures integrating socio-economic information, existing and new vaccines, genetics and biomarkers assisted breeding schemes based on response to vaccines and pathogens, management of biosafety, housing and nutrition. At the end of the project it will be linked to the wiki-website

on vaccine risks. This website will have its own detailed deliverable (D17.3). After the project, the website will be maintained by INRA.

Table 4. Overview integrated health management strategies website

Aim:	Make a website for food animal stakeholders to inform them on subjects concerning the project.
What:	Website with information about a variety of subjects concerning the project, such as (new) vaccines, pathogens and socio-economic information.
How:	Create a website targeted to food animal stakeholders. At the end of the project the website will be linked to the wiki-website.
Who:	INRA will setup the website, but needs input from all other SAPHIR partners
Needed:	Input from WP leaders and individual participants.
Time frame:	Ongoing

5.1.4. Wiki-website

Within WP16, there is a separate task to produce a wiki-website to qualitatively and systematically synthesize existing information from the literature and upcoming knowledge with regards to factors influencing vaccine effectiveness.

Previously identified factors influencing the short-and long-term vaccine effectiveness in term of disease spread and pathogen evolution will be reviewed. Based on this the candidate factors that are likely to influence the effectiveness of existing and new vaccines against the SAPHIR pathogens will be established; these are likely to encompass host, pathogen genetics, as well as vaccine and environmental parameters. To qualitatively assess the SAPHIR vaccines with respect to these vaccine effectiveness factors, a wiki-website will be then developed. The relevant members of the SAPHIR consortium will contribute to this wiki-website by providing state-of-the-art knowledge (and knowledge gaps) about these factors. At the end of the project (after addressing IP rights), the wiki-website will be made publically available. The website can be used by scientists, vaccine companies and policy makers as a template to systematically assess other vaccines. The wiki-website will have its own detailed deliverable (D16.1).

Table 5. Overview wiki-website

Aim:	Make a wiki-website that can be used by scientist, vaccine companies and policy makers as a template to systemically assess other vaccines.
What:	Wiki-website on identification of candidate risk factors of existing and new vaccines against the SAPHIR pathogens
How:	Create a wiki-website and keep it up to date with information about existing and new vaccines.
Who:	UEDIN with PTP and INRA will be responsible for website design and maintenance.
Needed:	Input from WP leaders and individual participants. Information about existing and new vaccines.
Time frame:	Ongoing

5.1.5. Newsletter

To get the project news across to each partner, stakeholder and interest groups, a (digital) newsletter is planned to be produced twice a year. The distribution of the newsletter will be facilitated by existing partner networks (EFFAB, INRA). Because of confidentiality issues, dissemination of results will be submitted to prior approval of the Ex. Com. and IPUDC, following the procedure set by the IPUDC for the content of public dissemination material.

The newsletters will be created and send with the online tool MailChimp. Subscriber lists can also be managed easily with MailChimp. Interested persons can subscribe to the newsletter on the website homepage and news page. All partners are encouraged to send articles and interesting news to be communicated in the newsletter.

Table 6. Overview newsletters

Aim:	Inform project partners, stakeholders and interest groups on project news and backgrounds to engage them and interest them for the project and its outcomes.
What:	News items on recent developments, papers published, updates on results, updates on activities/events/progress, human interest articles.
How:	Web-based application MailChimp
Who:	EFFAB + INRA. WP leaders are responsible for providing news items for the newsletter and individual project participants will be asked for input on research (or human interest)
Needed:	Input from WP leaders and individual participants.
Time frame:	Ongoing, newsletters will in principle be send out twice a year.

5.1.6. Social media

Text updates will be proposed and sent to SAPHIR partners by EFFAB, after validation of Isabelle Schwartz and Marie-Hélène Pinard, when news from SAPHIR has to be spread. The text updates will have a Tweetable message (app. 100 characters, leaving room for retweets and small comments) and a more elaborate message, if necessary, to post on e.g. LinkedIn. Partners will be proposed to (re)tweet them or to post them on their Twitter and/or LinkedIn page. No specific Twitter nor LinkedIn account will be opened by EFFAB for SAPHIR.

5.2. Offline communication

5.2.1. Project brochure

A project brochure will be made to inform the target audiences on background, project aims, challenges, SAPHIR diseases and current situation. This project brochure can be used as a printed version and will also be published on the project website. Because of confidentiality issues, dissemination of results will be submitted to prior approval of the Ex. Com. and IPUDC, following the procedure set by the IPUDC for the content of public dissemination material.

Table 7. Overview project brochure

Aim:	To inform target audience on background, project aims, challenges, SAPHIR diseases and current situation.
What:	Brochure with information of the project.
How:	Digital brochure, available on the website (and) in pdf format for easy printing
Who:	EFFAB, INRA + WP leaders and individual participants.
Needed:	Input from project partners (results, background information etc.)
Time frame:	Brochure will be delivered at month 12 of the project.

5.2.2. Posters

To ensure visibility of SAPHIR at events and activities of project partners, project posters will be produced. The amount and level of information presented on the posters will be adjusted to the nature of the event or activity. A poster template will be made, which will be easily adjustable to suit the event and place. Because of confidentiality issues, dissemination of results will be submitted to prior approval of the Ex. Com. and IPUDC, following the procedure set by the IPUDC for the content of public dissemination material

Table 8. Overview posters

Aim:	To inform target audience on background, project aims, challenges, SAPHIR diseases and current situation.
What:	Posters with information of the project.
How:	Printed poster, also available on the website (and) in pdf format for easy printing
Who:	EFFAB, INRA + WP leaders and individual participants.
Needed:	Input from project partners (results, background information etc.)
Time frame:	Template ready by M9; specific posters: ongoing

5.2.3. Press releases and media contacts

Press releases on the project's actions will be made, publishing interesting results and progress. These will be released on an international level, targeting the broader press and using partner networked newsletters. Partners will assure translation into national language.
Because of confidentiality issues, dissemination of results will be submitted to prior approval of the Ex. Com. and IPUDC, following the procedure set by the IPUDC for the content of public dissemination material.

Examples broader press journals:
- Point Vétérinaire (www.lepointveterinaire.fr)
- Filières Avicoles (www.filieres-avicoles.com)
- Boerderij (http://www.boerderij.nl/)
- Pig progress (worldwide) (http://www.pigprogress.net/)
- World poultry (worldwide) (http://www.worldpoultry.net/)

Table 9. Overview press releases

Aim:	To disseminate interesting results and promote SAPHIR on an international and/or national level.
What:	Press releases about interesting results and progress of the project.
How:	Write press releases to be published on an international level e.g. in specialist veterinary or vaccinology journals, broader press or partner networked newsletters.
Who:	EFFAB, FEAB + WP leaders and individual participants.
Needed:	Results and other newsworthy information from project partners, translations into national languages.
Time frame:	Ongoing, when important results are available.

5.2.4. Scientific publications

In order to target the scientific community, the SAPHIR results will be published in high-ranked peer-reviewed scientific journals privileging the green model of open access journals. However, project partners are free to choose either the green or golden model of open

access. Because of confidentiality issues, dissemination of results will be submitted to prior approval of the Ex. Com. and IPUDC, following the publication procedure set by the IPUDC.

Table 10. Overview Scientific publications

Aim:	To disseminate important finding to other researchers in the field.
What:	Publications in peer-reviewed journals.
How:	Submit articles to peer-reviewed journals and upload results to publicly available databases.
Who:	All participants, WP leaders will present progress in board meetings
Needed:	Results from project.
Time frame:	Ongoing, when important results are available.

5.2.5. Presentation of results

Researchers will be encouraged to present their results at relevant European meetings, conferences and fora. Because of confidentiality issues, dissemination of results will be submitted to prior approval of the Ex. Com. and IPUDC, following the publication procedure set by the IPUDC.

Table 11. Overview presentation of results

Aim:	To present results of the project to other researchers, policy makers and stakeholders.
What:	Presentations at international conferences, meetings and fora.
How:	Present results by PowerPoint presentation, poster presentation, scientific publications etc.
Who:	Researchers within the project.
Needed:	Results to present and communicate about.
Time frame:	Ongoing.

The following conferences, meetings and events with relevance to the project have been identified (Table 12). This list or parts thereof will also be available on the SAPHIR website and will be updated on a regular basis by EFFAB as most partners will decide on their participation and involvement during the project period.

Table 12. Relevant conferences, meetings and events for SAPHIR (to be adjusted during the project period)

Name of conference/meeting/event	Date	Place	Target groups
European federation of animal science.	31 August - 4 September, 2015	Warsaw	Scientists practitioners representatives of the administration linked to animal science
Anihwa final conference	25 - 26 November, 2015	Paris	Scientists
Rencontres en Santé Animale	1 - 2 December, 2015	Strasbourg	Scientists, industry
International Society for Animal	23 - 27 July,	Salt Lake City,	Scientists

Genetics Conference	2016	Utah	
International Veterinary Immunology Symposium	16 - 19 August, 2016	The Gold Coast, Australia	Scientists

5.2.6. Workshops for stakeholders

Two workshops will be organised where scientists meet with food animal stakeholders, policy makers, food industry and consumer representatives to discuss the advances made in the field of livestock vaccine strategies (under control of the Ex. Com and the IPUDC) in light of the SAPHIR project, and the needs and interests of stakeholders. The workshops aim to facilitate interactions between academics and stakeholders and increase mutual awareness. Both workshops will be organised in Brussels, connecting to other events.

Table 13. Overview presentation of results

Aim:	Have a discussion with stakeholders about different important topics on livestock vaccine strategies.
What:	Workshops for scientist, food animal stakeholders, policy makers, food industry and consumer representatives.
How:	Organize 2 workshops at Brussels. Communicate outcomes to stakeholders.
Who:	EFFAB, INRA + WP leaders and individual participants.
Needed:	Material and information for the workshop, location in Brussels, participants.
Time frame:	Workshops will be held in year 2 (M18) and end of year 3 (M36) of the project.

5.2.7. Young scientist programme

Young SAPHIR scientists will be supported to attend international meetings and conferences to improve their international network and disseminate major SAPHIR advances (e.g. international congresses in veterinary parasitology, virology, bacteriology, immunology, animal genetics, agro-sociology, agroeconomics). A committee consisting of the WP leaders, chaired by EFFAB, will select 2 applicants per year (for a full duration) on the basis of scientific excellence of the work to be presented. Participants will be asked to write an article for the newsletter to share pertinent knowledge with stakeholders. This committee will meet once a year to evaluate the applications.

Table 14. Overview young scientist programme

Aim:	To support young scientist in improving their network and to disseminate SAPHIR advances.
What:	Young scientist programme to support scientist at attending international meetings and conferences.
How:	A committee will select suitable scientists on the basis of scientific excellence of the work to be presented.
Who:	INRA, EFFAB, all SAPHIR participants.
Needed:	Promotion of the young scientist programme by SAPHIR partners, applications from young scientists, committee to judge applications from young scientists.
Time frame:	Ongoing.

5.2.8. Launching of a Global Alliance for Veterinary Vaccinology

In link with FP7- Global Network for Animal Disease Research STAR-IDAZ, the Global Alliance for Veterinary Vaccinology will be established, providing training to academic and industrial scientists and other animal health professionals. This 2-3 day course will be satellite of the 2 last annual meetings and will involve other H2020 project participants related to SAPHIR such as Feed-a-Gene and Paragone. Lectures will focus on comparative immunology, on vaccine developments against major animal pathogens (livestock diseases), on industrial and socio-economic constraints specific to veterinary vaccines and will be given by SAPHIR and other internationally renowned scientists:

– SAPHIR experts on: pathogens and their vaccines
                      socio-economics of vet vaccines
                      industrial constraints for vaccine development
– UK Veterinary Vaccinology Network experts
– PARAGONE (SFS1B-H2020) experts on parasite pathogens
– Feed-a-Gene (SFS1A-H2020) experts on nutrition and genetics for more robust animals

Table 15. Overview Global Alliance for Veterinary Vaccinology

Aim:	To train academics, industrial scientists and other animal health professional
What:	Three day course on comparative immunology, vaccine development and industrial and socio-economic constraints to veterinary vaccines.
How:	A three day course, satellite of the Institut Pasteur Vaccinology course.
Who:	INRA, all SAPHIR participants.
Needed:	Input for the course, teachers, participants.
Time frame:	Launch in M36, course will take place in year 3.

5.3. Linking with existing projects

Active links will be established with existing relevant EU or international projects, as the research participants in SAPHIR are either involved in, or have networks with several relevant H2020 projects relating to vaccinology, animal breeding and veterinary sciences, for example, Feed-a-Gene or PARAGONE.

Table 16. Overview of means and media per target audience.

Target audiences **Means and media**	Project partners	Project officers	Food animal stakeholders	Researchers and lecturers	General public / consumers	Policy-makers and food industry
SAPHIR public website	*	*	*	*	*	*
Partner platform	*					
Website integrated health management strategies			*	*		
Wiki-website			*	*		*
Newsletter	*		*	*	*	
Project brochure			*	*	*	*
Posters			*	*	*	
Press releases			*		*	*
Scientific publications	*			*		*
Presentation of results			*	*		*
Workshops for stakeholders			*			
Young scientist programme	*					
Global Alliance for Veterinary Vaccinology			*	*		

6. Communication planning

Means and media	Year 1				Year 2				Year 3				Year 4				Year 5			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
SAPHIR public website	X---(ongoing)--X																			
Partner platform	X---(ongoing)--X																			
Website integrated health management strategies		X-------------X---X																		
Wiki-website	X---(ongoing)--X																			
Newsletter		X		X		X		X		X		X		X		X		X		X
Project brochure					X															
Posters			X---(ongoing)--X																	
Press releases	X---(ongoing)--X																			
Scientific publications	X---(ongoing)--X																			
Presentation of results	X---(ongoing)--X																			
Workshops for stakeholders						X					X									
Young scientist programme	X---(ongoing)--X																			
Global Alliance for Veterinary Vaccinology								X-----------------X--X												

7. Evaluation

To be able to know whether the communication has been used effectively, it is important to try and evaluate the use of the dissemination and communication tools. Not all communication expressions are easy to evaluate. However, MailChimp provides analytical tools to keep track of how the target audiences respond to the SAPHIR messages. The SAPHIR website activity can be analysed with Google Analytics.